

SEQUENCE LISTING

<110> Adolf, Guenther  
Baum, Anke  
Heider, Karl-Heinz

<120> Compositions and Methods for Treating Cancer using  
Cytotoxic CD44 Antibody Immunoconjugates and  
Chemotherapeutic Agents

<130> 1/1383

<140> To be assigned  
<141> 2003-08-21

<150> EP 02 018 686.2  
<151> August 21, 2002

<150> US 60/405,956  
<151> August 26, 2002

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<170> PatentIn Ver. 2.1

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<212> PRT  
<213> Homo sapiens

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Glu Asp Ser His Ser Thr Thr Gly Thr Ala  
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Glu Arg Ala Thr Leu Ser Cys Ser Ala Ser Ser Ser Ile Asn Tyr Ile  
20 25 30

Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile Tyr  
35 40 45

Leu Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser  
50 55 60

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro Glu  
65 70 75 80

Asp Phe Ala Val Tyr Tyr Cys Leu Gln Trp Ser Ser Asn Pro Leu Thr  
85 90 95

Phe Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro  
100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr  
115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys  
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu  
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser  
165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala  
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Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe  
195 200 205  
Asn Arg Gly Glu Cys  
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ctgtcctgca gtgccagctc aagtataaat tacatataact ggtaccagca gaagccagga 180  
caggctccta gactcttgc tatcttcaca tccaaacctgg cttctggagt ccctgcgcgc 240  
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accaagggtgg agattaaacg tacggtggt gcaccatctg tcttcatctt cccgccccatct 420  
gatgagcagt tgaaaatctgg aactgcctct gttgtgtgcc tgctgaataa ctcttatccc 480  
agagaggcca aagtacagtg gaagggtggat aacgcccctcc aatcgggtaa ctcccaggag 540  
agtgtcacag agcaggacacg caaggacacg acctacagcc tcagcagcac cctgacgcgtg 600  
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
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Asp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
35 40 45  
  
Ser Thr Ile Ser Ser Gly Gly Ser Tyr Thr Tyr Tyr Leu Asp Ser Ile

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55

60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr  
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Gln Gly Leu Asp Tyr Trp Gly Arg Gly Thr Leu Val Thr Val  
100 105 110

Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser  
115 120 125

Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys  
130 135 140

Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu  
145 150 155 160

Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu  
165 170 175

Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr  
180 185 190

Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val  
195 200 205

Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro  
210 215 220

Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe  
225 230 235 240

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val  
245 250 255

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe  
260 265 270

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro  
275 280 285

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr  
290 295 300

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val  
305 310 315 320

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala  
325 330 335

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg  
340 345 350

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly  
355 360 365

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro  
370 375 380

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser  
 385 390 395 400

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln  
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Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His  
 420 425 430

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys  
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<223> Humanised Antibody BIWA 4 Heavy Chain

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tgtgcagcct ctggattcac tttcagtagctatgacatgt cttgggttcg ccaggctccg 180  
gggaaggggc tggagtgggt ctcaaccatt agtagtggtgttagttacacctactatcta 240  
gacagtataa agggccgatt caccatctcc agagacaatg ccaagaactccctgtacctg 300  
caaatgaaca gtctgagggc tgaggacacg gccgtgtatt actgtgcaag acagggggtt 360  
gactactggg gtcgaggaac cttagtcacc gtctcctcag ctagcaccaa gggcccatcg 420  
gtcttcccccttggcaccctcctccaagagcacctctgggggcacagcggccctggctgc 480  
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agcggcgtgc acaccttccc ggctgtccta cagtcctcag qactctactccctcaqcaqc 600

tggtgaccg tgccctccag cagttggc acccagacct acatctgcaa cgtgaatcac 660  
aagcccagca acaccaagggt ggacaagaaa gttgagccca aatcttgtga caaaactcac 720  
acatgcccac cgtgcccagc acctgaactc ctggggggac cgtcagtctt cctcttcccc 780  
ccaaaaccca aggacaccct catgatctcc cgAACCCCTG aggtcacatg cgtggtggtg 840  
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cataatgcca agacaaagcc gcgggaggag cagtacaaca gcacgtaccg tgtggtcagc 960  
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Glu Arg Ala Thr Leu Ser Cys Ser Ala Ser Ser Ser Ile Asn Tyr Ile  
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Tyr Trp Leu Gln Gln Lys Pro Gly Gln Ala Pro Arg Ile Leu Ile Tyr  
35 40 45  
Leu Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser  
50 55 60  
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro Glu  
65 70 75 80

Asp	Phe	Ala	Val	Tyr	Tyr	Cys	Leu	Gln	Trp	Ser	Ser	Asn	Pro	Leu	Thr
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															95
Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg	Thr	Val	Ala	Ala	Pro
										100					105
															110
Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp	Glu	Gln	Leu	Lys	Ser	Gly	Thr
										115					120
															125
Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn	Phe	Tyr	Pro	Arg	Glu	Ala	Lys
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Val	Gln	Trp	Lys	Val	Asp	Asn	Ala	Leu	Gln	Ser	Gly	Asn	Ser	Gln	Glu
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Ser	Val	Thr	Glu	Gln	Asp	Ser	Lys	Asp	Ser	Thr	Tyr	Ser	Leu	Ser	Ser
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Thr	Leu	Thr	Leu	Ser	Lys	Ala	Asp	Tyr	Glu	Lys	His	Lys	Val	Tyr	Ala
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Cys	Glu	Val	Thr	His	Gln	Gly	Leu	Ser	Ser	Pro	Val	Thr	Lys	Ser	Phe
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Asn	Arg	Gly	Glu	Cys											
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 ctgtcctgca gtgccagctc aagtataaat tacatataact ggctccagca gaagccagga 180  
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gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc 480  
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